

**REMARKS**

**A. Status of the Claims**

Claims 1-21 are now pending in this application. Claim 1 has been amended to better clarify the invention, which is a continuous or semi-continuous process. By definition, a process that operates continuously or semi-continuously has input and output flows that run continuously or semi-continuously for the duration of the process. Claim 19 has been amended to correct its dependency. Thus, no estoppels have been created and no new matter has been added.

**B. Drawing**

The Draftsperson has objected to Figure 1 for not having margins in compliance with 37 C.F.R. § 1.84(g). Applicant will submit formal drawings in compliance with the Rules when the claims have been allowed.

**C. Rejection Under 35 U.S.C. § 102**

Claim 1 is rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 4,888,160 ("Kosin et al.") for the reasons disclosed at pages 2-3 of the Office Action. Applicant respectfully traverses this rejection.

Applicant's invention, as recited in e.g., amended claim 1, is directed to a method of producing, continuously or semi-continuously, a product comprising precipitated

calcium carbonate in an aqueous medium, wherein the method comprises delivering, continuously or semi-continuously, an aqueous suspension of calcium hydroxide to a channel comprising at least two in-line mixers in series, introducing, continuously or semi-continuously, carbon dioxide into the channel at or before each of the mixers, and extracting, continuously or semi-continuously, from the channel an aqueous suspension of calcium carbonate produced by the reaction of calcium hydroxide and carbon dioxide in the channel.

Kosin et al. teach a process for producing precipitated calcium carbonate comprising injecting a gas containing carbon dioxide into a recirculating stream flowing in a recycling piping system, which is in communication with a reaction vessel. The carbon dioxide containing gas is introduced at a turbulent point or area in the recycling piping system, which may contain in-line mixers. ('160 patent at col. 2, lines 43-49 & col. 3, lines 41-50.)

All of the methods disclosed and exemplified by Kosin et al. require "a recycle piping system which is in communication with a reaction vessel" - - a batch process, i.e., a process with either discontinuous inputs, discontinuous outputs, or both, with a recycle line. ('160 patent at col. 3, lines 16-21, Examples 1-6, & claim 1.) Kosin et al.'s process is a closed batch process with a distinct start and end point: the process starts with a vessel charged with calcium hydroxide and ends with a vessel ostensibly filled with precipitated calcium carbonate. ('160 patent at Examples 1-6 & Figure 1.) As

such, it is not possible to add calcium hydroxide on a continuous or semi-continuous basis as needed nor is it possible to remove precipitated calcium carbonate on a continuous or semi-continuous basis as needed.

Thus, as present independent claim 1 has been amended to explicitly require that the calcium hydroxide and the precipitated calcium carbonate be delivered and extracted, respectively, on a continuous or semi-continuous basis, Kosin et al. do not teach or suggest each and every element and limitation of Applicant's invention, as required for anticipation under 35 U.S.C. § 102(b).

Accordingly, in view of the above, Applicant respectfully requests that the rejection over Kosin et al. be withdrawn.

**D. Rejection Under 35 U.S.C. § 103(a)**

Claims 1-21 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kosin et al. in view of EP 604,095 ("Bleakley") for the reasons disclosed at pages 3-6 of the Office Action. According to the Examiner, it would have been obvious to one of ordinary skill in the art to apply the teachings of Bleakley to modify Kosin et al.'s process to entrain and bond non-consumable solids to the precipitated calcium carbonate. Applicant respectfully traverses this rejection.

As discussed above, Kosin et al. teach a batch process comprising the use of a reaction vessel and a recycling piping system, wherein the carbon dioxide containing

gas is introduced at a turbulent point or area in the recycling piping system, which may contain in-line mixers.

Applicant's invention is not obvious over Kosin et al. The amended claims require that the calcium hydroxide and the precipitated calcium carbonate be delivered and extracted, respectively, on a continuous or semi-continuous basis. In contrast, all of the processes disclosed and exemplified by Kosin et al. require a distinct start and end point: the processes start with a reaction vessel charged with calcium hydroxide and end with a reaction vessel ostensibly filled with precipitated calcium carbonate. ('160 patent at Examples 1-6 & Figure 1.)

In order for Kosin et al. to obviate Applicant's invention, one must ignore the teachings of Kosin et al. regarding the use of the reaction vessel. Kosin et al. explicitly teach the use of the reaction vessel in communication with the recycle piping system to collect and homogenize the reactants before recharging them to the recycle piping system. ('160 patent at col. 3, lines 30-37.) A continuous or semi-continuous process, such as the invention, by definition does not have such a reaction/holding vessel in the middle of the process. "It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art." *In re Wesslau*, 353 F.2d 238, 241, 147 USPQ 391, 393 (C.C.P.A. 1965).

Only when there is motivation to modify a reference may one do so, rendering a claimed invention obvious. The motivation to modify the prior art must flow from the prior art, which teaches or suggests the desirability or incentive to make the modification. *In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784 (Fed. Cir. 1995). The motivation to modify the prior art may not flow from Applicant's specification in hindsight. *In re Dance*, 160 F.3d 1339, 1343, 48 USPQ2d 1635, 1637 (Fed. Cir. 1998). Here, the cited prior art does not provide such motivation. Kosin et al. only teaches the use of batch processes and not continuous or semi-continuous processes. Likewise, Bleakley, through its examples, only discloses batch processes. Hence, Kosin et al., neither alone nor in combination with Bleakley, teaches the processes of claims 1-21.

Accordingly, the rejection under Section 103 has been overcome and Applicant respectfully requests it be withdrawn.

**E. Conclusion**

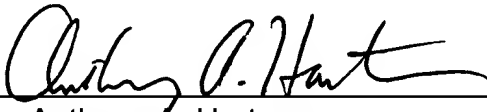
In view of the foregoing remarks, Applicant respectfully requests reconsideration of the pending claims and reexamination of the application. The timely allowance of the pending claims is respectfully requested.

Please grant any extensions of time required to enter this response and charge any additional required fees to our Deposit Account No. 06-0916.

Respectfully submitted,

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Dated: August 25, 2000

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